

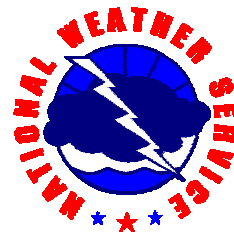


# DROUGHT INFORMATION STATEMENT

## SOUTH CENTRAL TEXAS

### WFO AUSTIN/SAN ANTONIO, TX

ISSUED: SEPTEMBER 21, 2006



## Synopsis

The month of September has produced a wetter pattern across the region. September has seen widespread rainfall with most locations seeing one to two inches of rainfall so far and some locations reporting 5 to 6 inches. Locations to the west and southwest of San Antonio have finally seen some beneficial rainfall. Many locations along the Rio Grande and southwestern sections of south Central Texas that were missing out on the rainfall during the entire year saw at least one half inch. Even with this welcome rainfall much of south Central Texas and the Rio Grande region have seen less than 50 percent of the normal yearly rainfall. Total observed rainfall from September 7th through September 20th is shown in figure 1. Figure 2 shows the observed yearly rainfall for 2006.

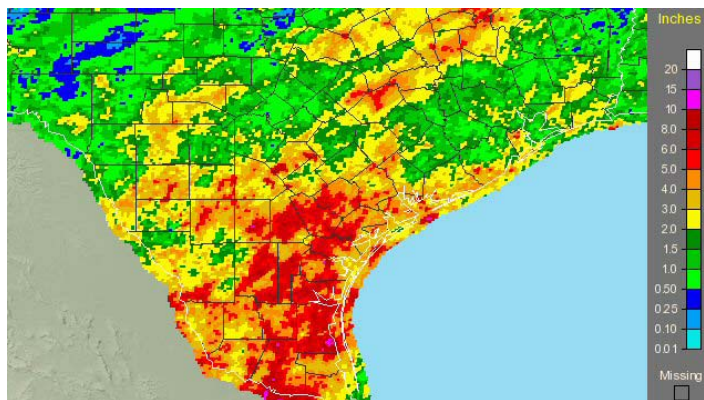


Figure 1 - Total Observed Rainfall August 31st through September 12, 2006.

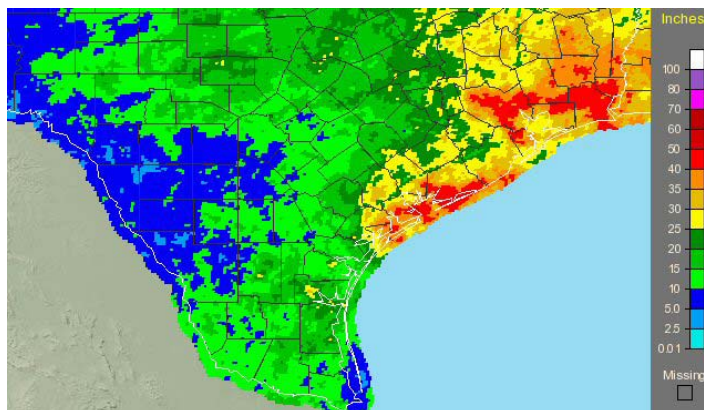


Figure 2 - Total Observed Yearly Rainfall January 1 through September 20, 2006

As shown in figure 3, the U.S. Drought Monitor, issued through the National Drought Mitigation Center on September 21st, shows the recent rainfall has improved the short term effect of the drought, but the long term effect have seen only minimal improvements. The long term lack of rainfall along the Rio Grande and southwestern sections of south Central Texas has kept the region very dry. The latest Drought Monitor map shows most of South Central Texas in Moderate to Extreme Drought conditions. The main drought impacts continue to be Agricultural and Hydrological. While recent rains have led to some short-term improvements the long-term deficits remain and the area will need several wet months to erase the deficits.

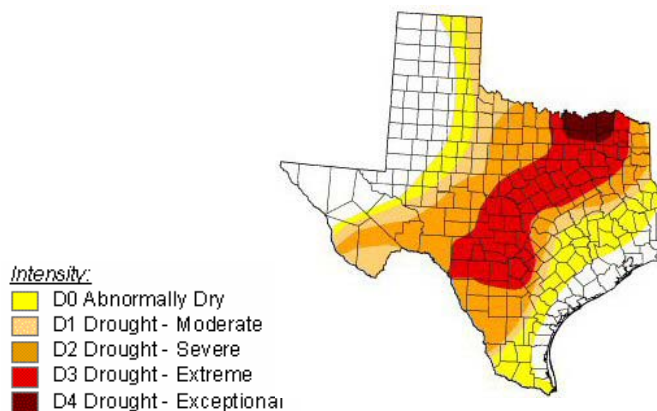


Figure 3 – September 21st, U.S. Drought Monitor County Level

This is a new feature with the Drought Monitor map where you can zoom down to a state level or county level.

The U.S. Drought Monitor is a comprehensive drought monitoring effort between government and academic partners. It is issued each Thursday morning and incorporates hydrometeorological data through 6 AM Tuesday.

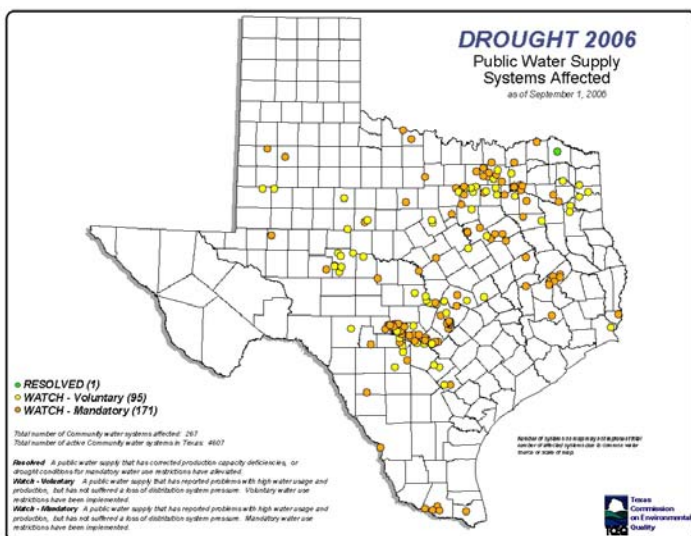
## Hydrologic Impacts

According to the USGS WaterWatch, most of the rivers across South Central Texas are reporting below normal flows for this time of the year. Many rivers and creeks are almost dry and have very little flow.

Reservoir conditions as of September 21, 2006, are presented in the following table.

| Reservoir         | Pool Elevation (ft) | Current Elevation (ft) |
|-------------------|---------------------|------------------------|
| Amistad           | 1117.00             | 1104.78                |
| Medina Lake       | 1064.2              | 1033.17                |
| Canyon Lake       | 909.00              | 902.80                 |
| Granger Lake      | 504.00              | 501.60                 |
| Lake Georgetown   | 791.00              | 772.50                 |
| Lake Buchanan     | 1020.00             | 1001.23                |
| Lake LBJ          | 825.00              | 824.74                 |
| Lake Marble Falls | 738.00              | 736.50                 |
| Lake Travis       | 681.00              | 646.43                 |
| Lake Austin       | 492.90              | 492.34                 |

According to Texas Commission on Environmental Quality (TCEQ), there are a number of public water supply systems affected by water use restrictions across the Hill Country and south Central Texas. Figure 4 shows all locations of affected systems across Texas.



*Figure 4 – Water Systems Under Water Use Restrictions  
as of September 1, 2006.*

## Fire Danger Impacts

As of September 21st, 23 South Central Texas counties support county wide outdoor burn bans. Several counties have dropped burn bans due to rainfall in September. A few South Central Texas counties also have disaster declarations established due to the dry conditions.

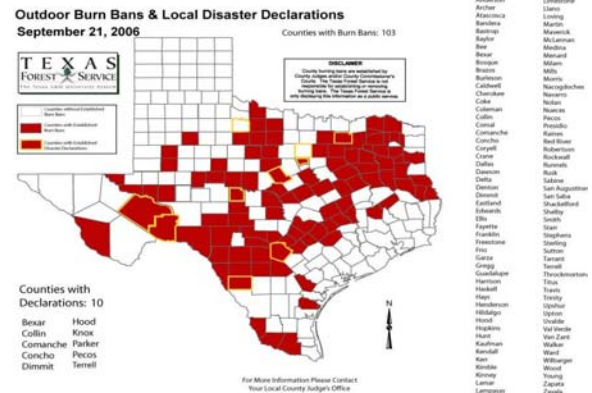


Figure 5 - Burn Bans Currently in Effect

The Texas Forest Service uses the Keetch-Byram Drought Index (KBDI) as a system for relating current and recent weather conditions to potential or expected fire behavior. It is a numerical index calculated daily for each county. Each number is an estimate of the amount of precipitation, in hundredths of an inch, needed to bring the soil back to saturation. The index ranges from 0 to 800, with 0 representing a saturated soil and 800 a completely dry soil. As shown in figure 6, the September 20th issuance of the KBDI shows that the Hill Country falls within the 400 to 600 range. The KBDI for the majority of the western and southern parts of South Central Texas falls within the 500 to 700 range.

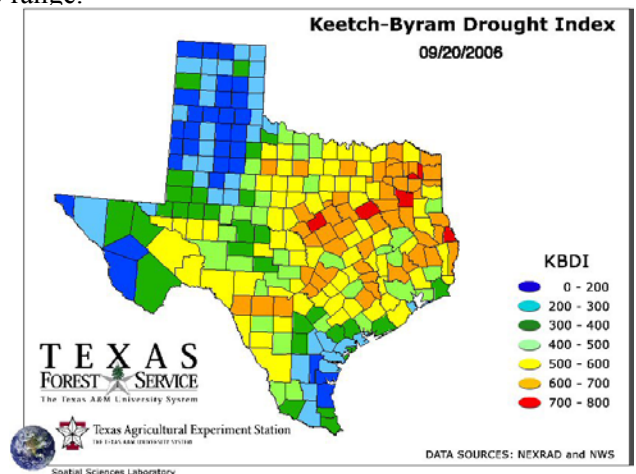


Figure 6 – KBDI Map

The Texas Forest Service advises to watch out for key weather thresholds of winds above 15 mph and relative humidity below 25 percent. When these thresholds are exceeded, expect the fire danger to be elevated.

## Agricultural Impacts

The Climate Prediction Center analyzes the percent of available soil moisture as compared to normal. As of September 20<sup>th</sup>, the available soil moisture ranges from 10 to 30 percent of normal across all of South Central Texas and the Hill Country. Figure 7 depicts available soil moisture percentiles

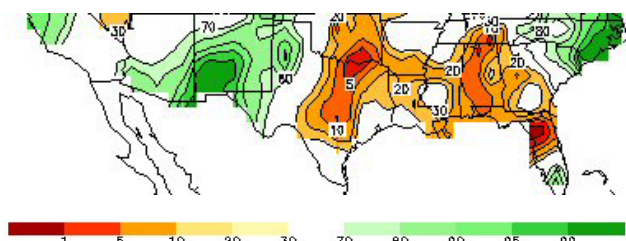


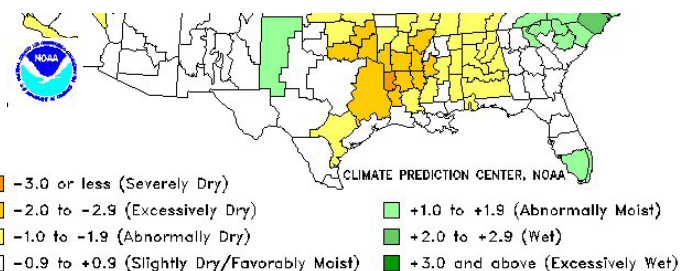
Figure 7 – Percent Available Soil Moisture

The Crop Moisture Index monitors short term moisture conditions across major crop producing regions. This index is not used to monitor long term drought conditions. The latest Crop Moisture Index issued by the Climate Prediction Center on September 16, indicated that short term moisture conditions range from slightly dry/favorably moist to abnormally dry across South Central Texas.

### Crop Moisture Index by Division

Weekly Value for Period Ending 16 SEP 2006

Short Term Need vs. Available Water in 5 Ft Profile



## Outlook

The Climate Prediction Center Outlook for October through December indicates equal chances for normal, below normal or above normal temperatures across South Central Texas (figure 8). The outlook shows greater chances for above normal precipitation through December (figure 9).

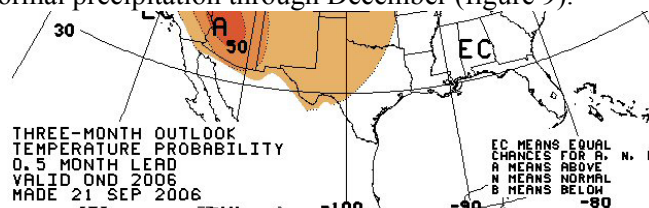


Figure 8 – Temperature Outlook

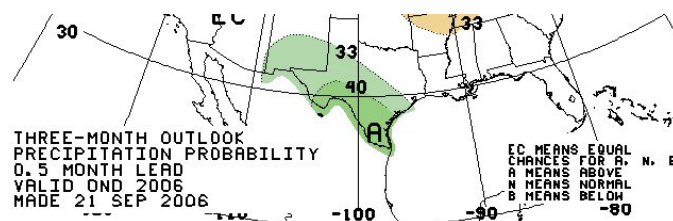
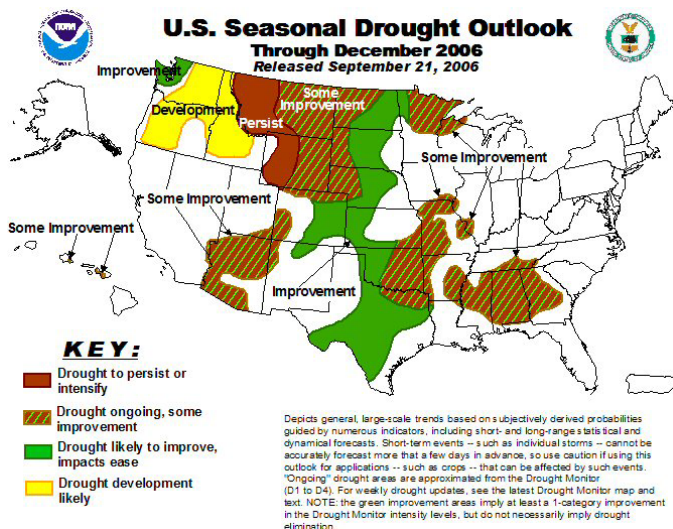


Figure 9 – Precipitation Outlook

As shown in figure 10, the latest U.S. Seasonal Drought Outlook shows that current drought conditions across south Central Texas are expected to improve through December.



### Contact Information:

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2090 Airport Road  
New Braunfels, TX 78130  
830.606.3617

Website: <http://www.srh.noaa.gov/ewx/>

Email: [sr-ewx.webmaster@noaa.gov](mailto:sr-ewx.webmaster@noaa.gov)

# Drought Related Links:

The U.S. Drought Monitor:

<http://www.drought.unl.edu/dm>

The USGS WaterWatch:

<http://water.usgs.gov/waterwatch>

TCEQ Map of Water Systems under Water Use Restriction

[http://www.tceq.state.tx.us/nav/util\\_water/drought.html](http://www.tceq.state.tx.us/nav/util_water/drought.html)

The Texas Counties Burn Ban Map:

<http://www.tamu.edu/ticc/>

The KDBI County Average Map:

[http://webgis.tamu.edu/tfs/kbdi\\_daily/kbdicounty.png](http://webgis.tamu.edu/tfs/kbdi_daily/kbdicounty.png)

CPC Soil Moisture:

<http://www.cpc.ncep.noaa.gov/soilmst/w.shtml>

Texas AgNews:

<http://agnews.tamu.edu/dailynews/index.html>

CPC Outlook Maps:

<http://www.cpc.ncep.noaa.gov/products/forecasts/>

CPC U.S. Seasonal Drought Outlook:

[http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/seasonal\\_drought.html](http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html)

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